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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,819	12/19/2006	Jonas Nyhlen	10400C-000220US	9366
30593 7590 03/27/2009 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195				
EXAMINER				
TOOM, IYAD F				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/573,819

**Applicant(s)**

NYHLEN ET AL.

**Examiner**

IYAD TOOM

**Art Unit**

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-85/86)
- Paper No(s)/Mail Date 03/28/2006

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification***

The disclosure is objected to because of the following informalities: page 2, line 7 of the specification recites: "being given the features that are evident from claim 1", examiner recommends removing the language that contains "claim 1", since claims can be amended throughout the prosecution of the application. Appropriate correction is required.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following claimed features are missing from the drawings:

- "Plug interface" which is claimed in claim 5 is missing from figure 1.
- "second temperature sensor is arranged in the upper part of the door frame" which is claimed in claim 7 is missing from figure 1.
- "change-over switch" which is claimed in claim 9 is missing from figure 1.

The abovementioned features must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure

is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 5 recites: "experience curve is programmed." It is not clear as to what is intended by the experience curve. The specification does not give any information as to what is intended. Furthermore, it is unclear as what structure/element is programmed in the claim.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 4, 5, 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beatenbough, US Patent No. 5,778,689, and further in view of Kobayashi, Japanese Publication Number JP11073552 listed on the applicant's IDS.

**In regard to claim 1**, Beatenbough teaches a cold-storage/freezer space A comprising at least one door B with at least two transparent sheets 14 and 14' (see Figure 2), a conductive layer 18 (disclosed in col. 2, line 67-col. 3, line 2) being placed on one of the sheets 14' to function as a heating element to keep said sheets free of condensation, the system comprising a moisture sensor 46 and a temperature sensor 40 on the side which is warm when using the cold-storage/freezer space (see Figure 1), said sensors 40 and 46 being connected to a control unit C, said control unit regulating the supply of power to said conductive layer (Abstract discloses that the control unit provides power supply for the conductive layer). However, Beatenbough does not disclose that the system also comprises a second temperature sensor in said cold-storage/freezer space or that the second temperature sensor being connected to said control unit.

Kobayashi teaches having a temperature sensor to sense the temperature inside the storage space in order to determine the power supplied to heat a transparent window

4a. It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Beatenbough's invention to include a second temperature sensor located inside the storage space as taught by Kobayashi in order to monitor the temperature of the storage space and to regulate the amount of power supplied to the conductive layer which helps maintain a condensation free surface.

**In regard to claim 3**, Beatenbough teaches that the control unit C is a separate unit arranged separately from the door B (see Figure. 1).

**In regard to claim 4**, Beatenbough teaches in Abstract that the control unit C maintains the temperature of the sheets at a temperature range that maintains the sheets free of condensation and further teaches in col. 4, lines 7-11 that the temperature to be maintained is above the dew point temperature, thus satisfying the limitations of claim 4.

**In regard to claim 5**, the combined system of Beatenbough discloses in col. 3, line 59-col. 4, line 6 adjusting the controller to maintain a maximum and minimum dew point levels and it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combined system of Beatenbough and Kobayashi to program the control unit C with an experience curve in order to maintain a proper and efficient dew point range which helps maintaining the surface free from condensation and further helps minimizing the energy consumption.

**In regard to claim 7**, the combined invention of Beatenbough Kobayashi does not teach that the second temperature sensor is located in an upper part of the door frame. However, it would have been obvious to a person of ordinary skill in the art at the time of the invention to re-arrange the second temperature sensor of the combined system of Beatenbough and Kobayashi to be placed in an upper part of the door frame since arranging a temperature sensor within a storage space involves only routine skill in the art and re-arranging the second temperature sensor within another location in the storage compartment will still give accurate representation of the temperature within the storage compartment.

**In regard to claim 10**, Beatenbough teaches in col. 3, lines 1-2 that the transparent sheet 14' is a sheet of glass.

Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beatenbough, in view of Kobayashi and further in view Midlang, US Patent 4,938,027.

**In regard to claim 2**, the combined system of Beatenbough and Kobayashi does not teach that the control unit C is arranged in the doorframe. Midlang teaches in Fig. 2 having a control unit 12 arranged in a doorframe of a freezer door 18. It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combined system of Beatenbough and Kobayashi to have the controller C arranged in the doorframe as taught by Midlang since arranging the controller within the system

requires only a routine skill in the art and re-arranging the controller location will not affect the system performance.

**In regard to claim 6**, the combined system of Beatenbough and Kobayashi does not teach having a plug interface that is connected to the control unit to allow reprogramming. Midlang teaches a plug interface 222 (called EEPROM) (see Figure. 4) attached to electronic control 202 (see Figure 4), the EEPROM is normally used to receive data and reprogram different aspects of the control unit 202. It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combined system of Beatenbough and Kobayashi to include a plug interface as taught by Midlang in order to control the different aspects of the control unit C and and further adjust the different control parameters of the system which helps in controlling the system more efficiently.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beatenbough, in view of Kobayashi and further in view of Bos, US Patent No. 4,411,139.

In regard to claim 8, Beatenbough teaches in col. 4, lines 43-53 providing display units to visually monitor the operating status of the system, but does not disclose that the display units are made of light emitting diodes. Bos teaches in Fig. 1 having a plurality of light emitting diode devices for the indicators from 1-16 to indicate the operational status of the system (col. 3, lines26-34). It would have been obvious to a person of



ordinary skill in the art at the time of the invention to modify the combined system of Beatenbough and Kobayashi to include light emitting diodes indicators as taught by Bos in order to indicate the operational status of the system in order to achieve a simple and quick way of monitoring the system status which helps quickly and efficiently control the system various functions.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beatenbough, in view of Kobayashi and further in view of Heaney, US Patent No. 4,127,765.

In regard to claim 9, the combined system of Beatenbough and Kobayashi does not teach having a change-over switch that is connected to allow use of the same system for different type of doors and operating conditions. Heaney teaches in the Abstract that a change over switch (disclosed as a switching means in the Abstract) that allows the system to be used with different type of doors and operating conditions (Abstract discloses series and parallel door connections). It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combined system of Beatenbough and Kobayashi to include a change-over switch as taught by Heaney in order to make the storage system more adaptable to different operating conditions and different installation requirements which saves on parts and installation of the system.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to IYAD TOOM whose telephone number is (571)270-7395. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Jules or Cheryl Tyler can be reached on 571-272-6681 or 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

3/23/2009  
/I. T./  
Examiner, Art Unit 3744

/Greg Vidovich/  
TQAS, TC 3700

